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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,214	06/27/2001	Hideki Inomata		4819
2292	7590	03/07/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			VO, TUNG T	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,214

Applicant(s)

INOMATA ET AL.

Examiner

Tung Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,21,22 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) 6-20 and 23-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,21,22 and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21, 22, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Florentin (US 5,835,147) as set forth in the Office Action dated 09/07/2005, and the discussion follow.

Re claims 21, 22, and 34, Florentin discloses a picture conversion (20 of fig. 3) method for use with picture coding method (60 of fig. 3) for coding source picture data after picture conversion comprising:

temporally converting (20 of fig. 3) a picture data format based on coding difficulty information using at least temporal conversion to reduce temporally-redundant information (Col. 1, lines 42-44, note it has been recognized that by taking the temporal redundancy of image sequences into account, this means that the image sequences inherently have a temporal redundancy information; Col. 4, lines 17-31, note the pre-processing (20 of fig. 3) includes a conversion from an analog signal to a digital one, low pass filtering and horizontal and vertical decimation; wherein decimation typically involves reducing the number of pixels in each frame, typically by removing every n pixels per row (horizontal decimation) and/or per column (vertical decimation), so when the pixels in vertical column and horizontal row are reduce, the

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redundancy information of the video signal is reduced); wherein the coding difficulty information (58, 59, 66 of fig. 3) is information about the source picture data, including at least one of: spatial frequency component information, noise component information, inter-frame change information, and inter-frame motion vector information (motion estimator, 58 of fig. 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 28-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US 6,466,625 B1) in view of Florentin et al. (US 5,835,147) as set forth in the Office Action dated 09/07/2005.

Response to Arguments

5. Applicant's arguments filed 12/07/2005 have been fully considered but they are not persuasive.

It is noted that the specification describes that frame/field decimation unit 3 for decimating redundant frames or fields, that is, frames or fields having a strong correlation, from the source picture data S2 applied from pel count converter 2 in figure 1; decimating the pel count to 1440 pels not only narrows the bandwidth and reduces the macroblock count, it in also

an effective means of coding pictures at a low bit rate and coding pictures that are difficult to encode as shown in figure 12, element 203.

The applicant argued that nowhere in Florentin's disclosure suggests or teaches temporal conversion to reduce temporal redundant information, pages 2 and 3 of the remarks.

The examiner respectfully disagrees with the applicant. It is submitted that the pre-processing unit (20 of fig. 2) includes low pass filtering and horizontal and vertical decimation; wherein decimation typically involves reducing the number of pixels in each frame, typically by removing every n pixels per row (horizontal decimation) and/or per column (vertical decimation) (col. 4, lines 24-28), and taking the temporal redundancy of image sequences into account for encoding to reduce redundant information (col. 1, lines 42-44), so when the vertical and horizontal decimation removes the n pixels per row and/or column, the vertical and horizontal decimation reduces temporally-redundant information of the image sequence. In view of the discussion above, Florentin anticipates the claimed features.

The applicant further argued that Florentin teaches spatial decimation in column 4, lines 24-29; and Kobayashi does not teach or suggest that temporal conversion takes place, pages 3 and 4 of the remarks.

The examiner respectfully disagrees with the applicant. It is submitted that Florentin does not teach spatial decimation. Florentin does teach the temporal the temporal redundancy of image sequences (col. 1, lines 42-44) and the preprocessing unit (20 of fig. 3) to remove every n pixels in row and/or column, so this would suggest to reduce temporally redundant information. Therefore, the argument is not persuasive.

Kobayashi teaches the use of temporally filter in the pre-filter (23 of fig. 5) for filtering the input signal to reduce some of information in the image sequence (noise), but the pre-filter (23 of fig. 5) does not perform of reducing the temporally-redundant information. However, Florentin suggests the pre-processing unit (20 of fig. 3) to reduce temporally redundant information (col. 1, lines 42-44; and col. 4, lines 24-29). Therefore, one skill of ordinary skill in the art would have been suggested to modify the teachings of Florentin into the pre-filter (23 of fig. 5) of Kobayashi to improve the quality of the image. In view of the discussion above, the claimed features are unpatentable over the combination Kobayashi and Florentin.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tung Vo
Primary Examiner
Art Unit 2613